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3. An integrated flywheel operated battery and motor in a flywheel battery electric vehicle capable of operating under charge conditions when connected to a source of electrical power or when descending a hill and under load conditions when the vehicle requires motive power comprising:

a horizontally disposed cylindrical housing having an inverted conical base and a removable disc-shaped cover;

a horizontally disposed flywheel disposed in said housing mounted for rotation with said rotatable axle;

a circular battery located about the periphery of said flywheel;

said circular battery having a casing having an inner vertical wall and an outer vertical wall;

a plurality of electromagnetic rotor coils mounted at spaced intervals along said inner wall and said outer wall;

said cylindrical housing having an axially disposed bearing within said cover for receiving said rotatable axle;

said housing conical base defining an aperture through the center thereof through which said axle projects;

said housing having an outer cylindrical wall having an inner side;

a first plurality of electromagnetic field coils mounted and equally spaced around the circumference of said outer wall inner side;

said housing cover having a depending cylindrical wall disposed coaxially immediately inside said battery casing wall and

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27 having a second plurality of electromagnetic field coils mounted
28 and equally spaced along an outer side of said depending wall;
29 a plurality of secondary electrical brush locations along said
30 axle, each corresponding to an individual said rotor ^{coils} winding, and
31 means within said axle for conducting electricity from each of said
32 plurality of brush locations to said individual rotor ^{coils} windings;
33 a pair of primary electrical brush locations along said axle
34 electrically connected to corresponding positive and negative poles
35 of said battery;
36 means for constant electrically connecting said individual
37 field coils with a source of electrical power under charge
38 conditions; and
39 means for selective intermittent electrical connection of said
40 individual field coils with a source of electrical power under
41 motor drive conditions;
42 whereby, when under a condition of load, a computer directs a
43 constant flow of electricity from said battery through said primary
44 brush locations to a selected number of said rotor windings through
45 said rotor-coil brush locations, and an intermittent flow of
46 electricity to said field windings to act as a drive motor, and
47 whereby under a condition of charging said computer directs a
48 constant flow of electricity to said rotor windings, and said
49 computer receives a constant flow of electricity from said field
50 coils, which is conducted to said battery through one of said
51 primary brush locations for charging under charge conditions.

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1 4. The flywheel battery and motor of claim 3, further
2 comprising a circular contact track located immediately inside the
3 base of said inner vertical wall and a plurality of pairs of
4 electrical contacts spaced a along said track, each said pair being
5 electrically connected with each said first plurality of
6 electromagnetic field coils.

1 5. The flywheel battery and motor of claim 4, said flywheel
2 further comprising a plurality of spaced pairs of rolling bearing
3 contacts located along the underside of said flywheel and so
4 configured that as said flywheel turns said rotor bearing contact
5 pairs periodically form an electrical connection with said
6 electrical contact pairs spaced along said track such that
7 electrical pulses are provided to said plurality of electromagnetic
8 field coils.

1 6. The flywheel battery and motor of claim 5, wherein said
2 plurality of spaced pairs of rolling bearing contacts support said
3 flywheel and battery.

1 7. The flywheel battery and motor of claim 6, said disc
2 shaped cover having circular stabilizing track on its underside
3 near the perimeter of said disc-shaped cover.

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1 8. The flywheel battery and motor of claim 7, said flywheel
2 further comprising a plurality of spaced rolling stabilizer
3 bearings located along the upper side of said circular battery near
4 its outer periphery so as to roll against said circular stabilizing
5 track.

1 9. The flywheel battery and motor of claim 3, wherein said
2 axially disposed axle bearing of said cover extends upward from
3 said cover and said cover further comprises a plurality of radially
4 spaced triangular supports extending from said axle bearing to the
5 outer periphery of said cover.

1 10. The flywheel battery and motor of claim 9, wherein said
2 axle bearing extends axially downward from said cover and said
3 cover comprises a plurality of radially spaced triangular supports
4 extending from said axle supports to the under side of said cover
5 at points so as to clear said circular battery when said motor is
6 assembled.

1 11. The flywheel battery and motor of claim 3, wherein said
2 flywheel comprises a circular outer ring so sized and configured as
3 to support said circular battery, and an inverted, generally
4 conical ring support leading from said circular outer ring
5 downwardly and inwardly for attachment to said rotatable axle.

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1 12. The flywheel battery and motor of claim 11, wherein said
2 ring support comprises a plurality of generally triangular ring
3 support members, each set at an angle so as to leave a space
4 therebetween so as to form a fan for moving cooling air upward
5 through said motor.

1 13. The flywheel battery and motor of claim 12, wherein said
2 flywheel ring support further comprises concentric inner and outer
3 walls for housing and supporting said circular battery and a
4 removable ring-shaped cover attached to said inner wall and said
5 outer wall for completely housing said battery.

1 14. The flywheel battery and motor of claim 13, wherein the
2 positive and negative plates of said battery form concentric
3 circles.

1 15. The flywheel battery and motor of claim 14, wherein said
2 positive and negative plates are copper-lead composition and the
3 electrolyte is a starved electrolyte paste.

1 16. The flywheel battery and motor of claim 15, wherein said
2 circular battery is divided into four semicircular batteries, each
3 said semicircular battery having a positive pole and a negative
4 pole for receiving and sending electrical power to said pair of
5 primary brush locations on said rotatable axle.

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1 17. The flywheel battery and motor of claim 16, wherein each
2 said battery has a mounting notch so configured as to conform with
3 an upright attached to said flywheel ring and extending vertically
4 toward said battery cover.

1 18. The flywheel battery and motor of claim 17, wherein said
2 positive and said negative poles of each said battery are located
3 for electrical attachment with an upright within each said
4 corresponding notches.

1 19. The flywheel battery and motor of claim 3, further
2 comprising mounts spaced around said outer wall of said housing for
3 mounting said flywheel battery and motor to said vehicle.

1 20. The flywheel battery and motor of claim 3, wherein said
2 housing is made of an appropriate plastic.

1 21. The flywheel battery and motor of claim 7, wherein said
2 contact track and said stabilizing track are made of TEFLON.

1 22. The flywheel battery and motor of claim 11, wherein each
2 said disc-shaped cover and said conical base define apertures
3 therethrough for promoting the flow of cooling air through said
4 housing.

The amendment is entered to more fully claim the Applicant's invention. No new matter is entered. Formal examination on the merits of the application is now respectfully requested.

Respectfully submitted,



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